DISTROHOPPER

What's hot and happening in the world of Linux distros (and BSD!).

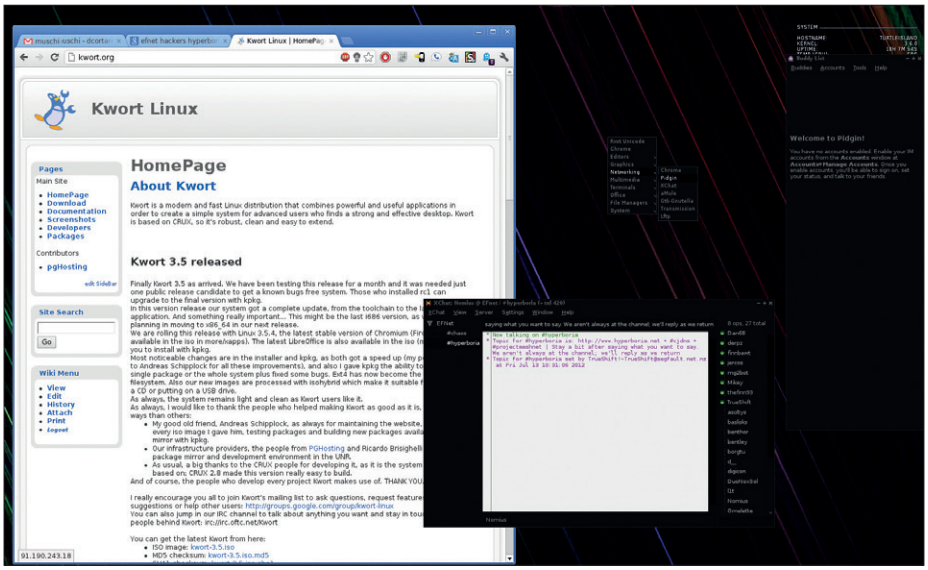
Kwort 4.2

A Systemd-free distro.

If you're not a fan of Systemd, you still have a handful of distros to choose from – although the numbers are thinning out with every month. Kwort (**www.kwort.org**) is holding on to a more traditional boot system, however, and is based upon Crux (**http://crux.nu**), which has been doing the rounds for over a decade. Crux describes itself as a lightweight distro for x86-64, targeted at experienced Linux users. "The primary focus of this distribution is keep it simple, which is reflected in a straightforward **tar.gz**-based package system, BSD-style init scripts, and a relatively small collection of... packages."

In that sense, it's similar to Arch, although Arch tends to be more ambitious in accepting wide-reaching changes such as the aforementioned Systemd. Kwort aims to expand upon Crux with a "strong and effective desktop", although you'll still need prior Linux experience.

For instance, there's no point-and-click graphical installer. You're expected to partition your drives, create filesystems and install packages via the live media, before **chroot**ing into the new installation for some last-minute setup steps. Then you can reboot into the new Kwort installation.



As with many advanced user-oriented distros, Kwort opts for a dark and moody default theme.

Kwort's basic setup is minimal and reminiscent of the *BSDs; indeed, it uses BSD init scripts and expects you to set up user accounts manually to enable access to various hardware devices. This might seem like a lot of effort, but as with Arch, Slackware and similar distros, you learn a lot about Linux on the way. If you're looking for a more old-school Unix-ish experience without Systemd infiltrating everything (although Systemd has benefits, it has to be said) then this is a decent option.

OpenIndiana 2015.03

OpenSolaris lives! Well, in a way...

Back in 2006, Sun Microsystems, maker of high-end servers and the famously robust Solaris operating system, decided to augment the free software community and created OpenSolaris. This provided competition for Linux and FreeBSD, but sadly, when Oracle snapped up Sun in 2010, the OpenSolaris project was ended. Still, a bunch of hackers took the last release of the source code and have continued it in the Illumos project.

Illumos is a bit like the Linux kernel, GNU C library and Coreutils – enough for a basic system, but most people expect more. OpenIndiana is effectively a distro of Illumos, providing an attractive desktop, applications, installer and other tools to produce a fully-fledged OS. The project has just made a new release, 2015.03 (codenamed "Hipster"), which provides various software updates.

Don't expect the latest bleeding-edge software, though: Solaris is notoriously conservative, and this approach passes through to the open source fork. The desktop is Gnome 2.32, for instance. This may seem crazy today, but consider that Solaris is focused on businesses, which take aeons to upgrade.

If you're writing software and want to check it runs on OpenSolaris, try it on OpenIndiana first.

So what's the point of OpenIndiana? For what purposes would you use it? Well, its a bit like CentOS. It doesn't have commercial support, it's a free download, but it's a zero-cost way to try an enterprise-oriented operating system.

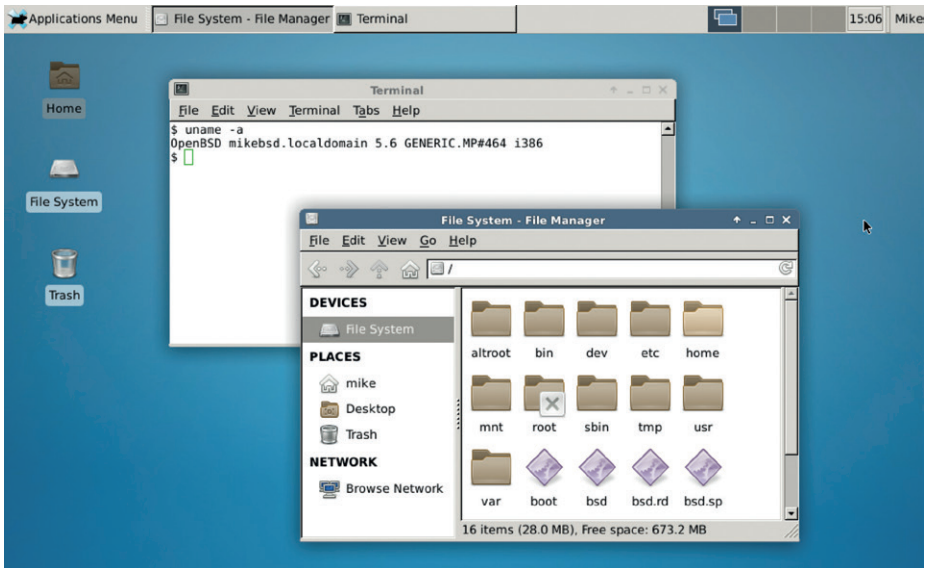
News from the *BSD camps

What's going on in the world of FreeBSD, NetBSD and OpenBSD.

We've had a few requests to cover the BSDs in Linux Voice, and for good reason: they're open source, Unix-flavoured operating systems under active development and with plenty of interesting tech inside. Right now, the OpenBSD team is gearing up for its 5.7 release, which is due to arrive on 1 May. OpenBSD is famous for having a like-clockwork release schedule, so we don't expect 5.7 to slip unless a major show-stopper bug is found.

The biggest change in this release is the rewriting of **rand()**, **random()** and other C library random number routines. They now return non-deterministic results, which breaks POSIX standards, but as the patch description from the team put it: "Violates POSIX and C89, which violate best practice in this century". Replacement routines have been written which follow the older deterministic model. This should improve security, but could also break some third-party apps (until they're patched).

Also on a security note, more OS binaries are now PIE (position-independent executables), which helps to have a randomised address space so that attackers can't guarantee where a certain piece of code in memory lives. Additionally, MD5 has been replaced with SHA512 in various parts of the codebase.



OpenBSD makes a decent desktop OS if your hardware is supported – see our review in issue 10.

One thing the OpenBSD team does especially well is getting rid of old cruft: 5.7 removes loadable kernel modules, procfs support and a few drivers. These are changes that won't please everybody, but are important for a clean codebase.

Red Hat Linux 5.2 – Linux reaches the mainstream

This seems like a random release to include in our historical distros section. Why not a major release like Red Hat 5.0 or 6.0? Well, something significant happened with 5.1 and 5.2. They were the first Red Hat releases – and arguably the first releases of any Linux distro – that started to get mainstream attention. We remember them being featured on the coverdiscs of several PC magazines in the UK, so it was the first exposure to Linux for many people.

On top of that, Red Hat was selling shiny boxed sets with DVDs, manuals and other materials. Linux was maturing from a random plaything Unix you could download from an FTP server; it was a professional, finished product you could buy and install for your home and business. Magazines started running tutorials on Linux as well, explaining how you could effectively get high-end Unix features for free (or a much lower price).

Looking back, and removing the rose-tinted specs, we can be honest: Red Hat 5.2 was very rough. Gnome and KDE hadn't reached version 1.0 yet, so the bundled "desktop" was a scrappy Windows 95-like *FVWM* setup called Anotherlevel with a few extra widgets lying around. We remember getting online with dialup and the horrendously crash-prone *Motif*-based *Netscape* browser, and recompiling the kernel to enable a driver for our on-board sound chip.

ISO images of Red Hat 5.2 are available from **https://archive.org/details/redhat-5.2_release** if you want to try it, but it's fiddly to get working in modern PC emulators and VMs.

Red Hat 5.2 arrived in November 1998, and was charming despite its rough edges.